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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Takehiro KATA et al.

Group Art Unit: 1722

Application No.: 09/431,154

Examiner: J. Mackey

Filed: November 1, 1999

Docket No.: 104639

For: VULCANIZING MOLD FOR PNEUMATIC TIRES

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the June 24, 2003 Office Action, the period for reply extended to December 24, 2003 by a Petition for Extension of Time filed herewith, reconsideration of the above-identified application is respectfully requested in light of the following remarks.

Claims 1, 2 and 4-6 are pending.

The indication on page 2, item 1 of the Office Action of the entry of the June 4, 2003 Request for Continued Examination, the entry of May 19, 2003 Amendment and the withdrawal of the finality of the previous Office Action, are acknowledged.

I. Reply to Rejections

On page 2, item 3 of the Office Action, claims 1, 2 and 4-6 are rejected under 35 U.S.C. §103(a) over Great Britain Patent No. 1,248,891 to Herbert in view of U.S. Patent No. 5,208,044 to Miyata et al. (hereinafter "Miyata") and further in view of U.S. Patent No. 3,806,288 to Materick, U.S. Patent No. 3,990,823 to Le Moullac (hereinafter "Le Moullac 1"), U.S. Patent No. 4,289,463 to Le Moullac (hereinafter "Le Moullac 2"), U.S.

Patent No. 6,066,283 to Nara et al. (hereinafter "Nara"), and U.S. Patent No. 3,553,89 to Allitt. The rejection is respectfully traversed.

It is respectfully submitted that none of Herbert, Miyata, Materick, Le Moullac 1, Le Moullac 2, Nara, Allitt, or their combination disclose *inter alia*, a single cam ring in direct engagement with the upper and lower tread mold members, the single cam ring being displaceable independently of approach displacements of the sidewall mold members toward each other, to thereby simultaneously displace all of the upper and lower segments radially inwards while the single cam ring remains in direct engagement with the upper and lower tread mold members and while the upper and lower segments are in abutment with each other, as recited in claim 1.

Further, the applied references, alone or in combination, fail to disclose operating a cam ring while the cam ring remains in direct engagement with the upper and lower tread mold members to simultaneously displace all of the segments radially inwards independently of approaching displacements of the sidewall mold members toward each other and relative to the upper and lower sidewall mold members, with the upper segments in abutment with the lower segments, as recited in claim 6.

Herbert fails to disclose simultaneously displacing all of the upper and lower segments radially inwards while the single cam ring remains in direct engagement with the upper and lower tread mold members. Instead, Herbert discloses displacement of the upper and lower segments while the cam ring remains in direct engagement with only the upper tread mold member, and not the lower tread mold member (Fig. 3, page 5, lines 77-91). As seen in Fig. 3 of Herbert, the projections 81 engage the recesses 34 before the ring 43 directly engages the lower part 1. The driving of the pressure ring 43 downwards moves the upper segments 42, and because of the engagement of the projection 81 with the recesses 34, will move the lower segment 10 before the pressure ring 43 directly engages the lower segment

10. Fig. 4 of Herbert merely discloses a closed position after the movement of the upper segment 42 and lower segment 10 is completed, and suggests the ring 43 directly engages the lower segment 10 when the movement of the lower segment 10 is completed or simultaneously with the completion of the movement. Therefore, in Herbert, simultaneous displacement of the upper and lower segments occurs not while the single cam ring remains in direct engagement with the upper and lower segments, contrary to the recited claims 1 and 6.

Miyata also fails to disclose the simultaneous displacement of all the upper and lower segments radially inward while the single cam ring remains in direct engagement with the upper and lower tread mold members. Instead, Miyata discloses that the lower sector portion 3b is pushed by the lower actuator portion 4b. Consequently, Miyata fails to disclose a single cam ring that simultaneously displaces all of the upper and lower segments radially inwards while the single cam ring remains in direct engagement with the upper and lower tread mold members (Fig. 12, col. 7, line 53 - col. 8, line 2). In fact, in Miyata, the upper actuator 7 or an actuator 4 never directly engages the lower sector portion 3b. Therefore, Miyata fails to disclose a single cam ring that directly engages the upper and lower tread mold members and that simultaneously displaces all of the upper and lower segments radially inwards.

Because of the above deficiencies, the combination of Herbert and Miyata fails to suggest the features of claims 1 and 6, in addition to the acknowledged deficiencies in Herbert and Miyata of lacking a spring that urges the lower segments radially outwards, as recited in claims 1 and 6. As the remaining applied references applied to show the spring also fail to overcome the deficiencies in Herbert and Miyata as to a single cam ring that simultaneously displaces all of the upper and lower segments radially inwards while the single cam ring remains in direct engagement with the upper and lower tread mold members,

as recited, Applicants respectfully submit claims 1 and 6 are patentable over the applied references.

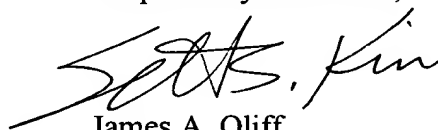
Claims 2, 4 and 5, which depend from claim 1, are likewise patentable over the applied references for at least the reasons discussed above and for the additional features they recite. Withdrawal of the rejection of claims 1, 2 and 4-5 is respectfully requested.

II. Conclusion

For the reasons stated above, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2 and 4-6 are respectfully requested.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: December 17, 2003

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